FY 2023 Over-Target-Justification
Office of Pollution Prevention and Toxics
Advancing Cumulative Risk Methodologies ($2.0M, 3.0 FTE)
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Cumulative and aggregate approaches to characterizing chemical exposure in risk evaluations conducted by OCSPP/OPPT under the Toxic Substances Control Act (TSCA) are important but underutilized methods within risk evaluations. TSCA provides the authority to enable use of these methods for risk evaluations and requires EPA to describe when aggregate exposures are considered and are the basis for consideration. Consideration of aggregate exposures will ensure that risk evaluations do not underestimate chemical exposures, which can result in underestimates of risk and impede effective risk management rulemaking to mitigate unreasonable risks characterized in the risk evaluation as required by TSCA.

Cumulative approaches will be particularly important in current risk evaluations of six high priority risk evaluations and two manufacturer-requested risk evaluations of phthalate chemicals. Phthalates were identified by the National Academies of Sciences (NAS) in a 2008 document as being appropriate for the use of cumulative and aggregate methods and specified a decision framework that would facilitate such an assessment[1]. To ensure that the best, reasonably available science is utilized in cumulative risk methodologies for phthalates, or any group of chemicals slated for review under revised TSCA, OPPT will collaborate with ORD and other EPA offices to update existing methods and develop new exposure estimation approaches, tools, and models to support chemical risk evaluations. Additionally, measurement data from a variety of sources, including biomonitoring data and other relevant exposure data, will be compiled, summarized, and reviewed to ensure appropriate use in analyses. With the requested funding, the following foundational activities could be expedited to support statutory deadlines under TSCA.

- Develop approaches to determine when aggregating chemical exposure across conditions of use is applicable.
- Develop approaches to identify co-exposure to chemicals to inform prioritization and to determine when cumulative assessments should be considered for relevant chemicals.
- Evaluate applicability and feasibility of biomonitoring data
- Update and develop exposure and hazard models
- Support for scientific and other publications

[1] https://www.nap.edu/catalog/12528/phthalates-and-cumulative-risk-assessment-the-tasks-ahead